

## CHAPTER V

### GUIDANCE REGARDING SPECIAL TRAINING REQUIREMENTS FOR PERSONNEL ON CERTAIN TYPES OF SHIPS

#### Section B-V/1

#### *Guidance regarding the training and qualifications of tanker personnel*

##### **Oil tanker training**

1 The training required by paragraph 2.2 of regulation V/1 in respect of oil tankers should be divided into two parts, a general part concerning principles involved and a part on the application of those principles to ship operation. Any of this training may be given on board or ashore. It should be supplemented by practical instruction on board and, where appropriate, in a suitable shore-based installation. All training and instruction should be given by properly qualified and suitably experienced personnel.

2 As much use as possible should be made of shipboard operation and equipment manuals, films and suitable visual aids, and the opportunity should be taken to introduce discussion of the part to be played by the safety organization on board ship and the role of safety officers and safety committees.

##### **Chemical tanker training**

3 The training required by paragraph 2.2 of regulation V/1 in respect of chemical tankers should be divided into two parts, a general part concerning principles involved and a part on the application on board of those principles to ship operations. Any of this training may be given on board or ashore. It should be supplemented by practical instruction on board and, where appropriate, in a suitable shore-based installation. All training and instruction should be given by properly qualified and suitably experienced personnel.

4 As much use as possible should be made of shipboard operation and equipment manuals, films and suitable visual aids, and the opportunity should be taken to introduce discussion of the part to be played by the safety organization on board ship and the role of safety officers and safety committees.

##### **Liquefied gas tanker training**

5 The training required by paragraph 2.2 of regulation V/1 in respect of liquefied gas tankers should be divided into the following two parts:

- 1 supervised instruction, conducted in a shore-based facility or on board a specially equipped ship having training facilities and special instructors for this purpose, dealing with the principles involved and the application of these principles to ship operation, so however that Administrations may, in special situations, permit junior officers or ratings to be trained on board liquefied gas tankers on which they are serving, provided that such service is for a limited period, as established by the Administration, and that such crew members do not have duties or responsibilities in connection with cargo or cargo equipment and provided further that they are later trained in accordance with this guidance for any subsequent service; and

- 2 supplementary shipboard training and experience, wherein the principles learned are applied to a particular type of ship and cargo-containment system.

All training and instruction should be given by properly qualified and suitably experienced personnel.

- 6 As much use as possible should be made of shipboard operation and equipment manuals, films and suitable visual aids, and the opportunity should be taken to introduce discussion of the part to be played by the safety organization on board ship and the role of safety officers and safety committees.

#### **ON-BOARD TRAINING FOR ALL TANKER PERSONNEL**

- 7 All tanker personnel should undergo training on board and, where appropriate, ashore, which should be given by qualified personnel experienced in the handling and characteristics of oil, chemical or liquefied gas cargoes as appropriate and the safety procedures involved. The training should at least cover the matters set out in paragraphs 9 to 15 below.

##### **Regulations**

- 8 Knowledge of the ship's rules and regulations governing the safety of personnel on board a tanker in port and at sea.

##### **Health hazards and precautions to be taken**

- 9 Dangers of skin contact; inhalation and accidental swallowing of cargo; oxygen deficiency, with particular reference to inert-gas systems; the harmful properties of cargoes carried, personnel accidents and associated first aid; lists of dos and don'ts.

##### **Fire prevention and fire-fighting**

- 10 Control of smoking and cooking restrictions; sources of ignition; fire and explosion prevention; methods of fire-fighting; of portable extinguishers and fixed installations.

##### **Pollution Prevention**

- 11 Procedures to be followed to prevent air and water pollution and measures which will be taken in the event of spillage.

##### **Safety equipment and its use**

- 12 The proper use of protective clothing and equipment, resuscitators, escape and rescue equipment.

##### **Emergency procedures**

- 13 Familiarization with the emergency plan procedures.

#### **Cargo equipment and operations**

14 A general description of cargo-handling equipment; safe loading and discharge procedures and precautions and safe entry into enclosed spaces.

#### **ON-BOARD TRAINING FOR LIQUEFIED GAS TANKER PERSONNEL**

15 Personnel who are required to be trained under regulation V/1 should be provided supplementary shipboard training and experience based on the ship's operation manual. Such training and experience should cover the following systems as applicable:

- .1 the cargo handling system including piping systems; pumps; valves; expansion devices and vapour systems; service requirements and operating characteristics of the cargo handling systems and liquid re-circulation;
- .2 instrumentation systems including cargo level indicators; gas-detection systems; hull and cargo temperature monitoring systems; the various methods of transmitting a signal from a sensor to the monitoring station and automatic shutdown systems;
- .3 boil-off disposal including use as fuel; compressors; heat exchanger; gas piping and ventilation in machinery and manned spaces; principles of dual-fuel boilers, gas turbines, diesel engines; emergency venting and re-liquefaction;
- .4 auxiliary systems including ventilation and inerting; quick-closing, remote control, pneumatic, excess flow, safety relief, and pressure/vacuum valves; steam systems for voids, ballast tanks and condenser; and
- .5 general principles of operating the cargo-handling plant including inerting cargo tanks and void spaces; tank cool-down and loading; operations during loaded and ballasted voyages; discharging and tank stripping; emergency procedures, and pre-planned action in the event of leaks, fires, collision, stranding, emergency cargo discharge and personnel casualty.

#### **PROOF OF QUALIFICATION**

16 The master of every oil, chemical and liquefied gas tanker should ensure that the officer primarily responsible for the cargo possesses an appropriate certificate, issued or endorsed or validated as required by regulation V/1, paragraph 4 and has had adequate recent practical experience on board an appropriate type of tanker to permit that officer to safely perform the duties assigned.

#### **Section B-V/2**

**Guidance regarding mandatory minimum requirements for the training and qualification of masters, officers, ratings and other personnel on ro-ro passenger ships**

(No provisions)

### **Section B-V/3**

#### **Guidance regarding additional training for masters and chief mates of large ships and ships with unusual manoeuvring characteristics**

- 1 It is important that masters and chief mates should have had relevant experience and training before assuming the duties of master or chief mate of large ships or ships having unusual manoeuvring and handling characteristics significantly different from those in which they have recently served. Such characteristics will generally be found in ships which are of considerable deadweight or length or of special design or of high speed.
- 2 Prior to their appointment to such a ship, masters and chief mates should:
  - .1 be informed of the ship's handling characteristics by the company, particularly in relation to the knowledge, understanding and proficiency listed under ship manoeuvring and handling in column 2 of table A-II/2 - Specification of the minimum standard of competence for masters and chief mates of ships of 500 gross tonnage or more; and
  - .2 be made thoroughly familiar with the use of all navigational and manoeuvring aids fitted in the ship concerned, including their capabilities and limitations.
- 3 Before initially assuming command of one of the ships referred to above, the prospective master should have sufficient and appropriate general experience as master or chief mate, and either:
  - .1 have sufficient and appropriate experience manoeuvring the same ship under supervision or in manoeuvring a ship having similar manoeuvring characteristics; or
  - .2 have attended an approved ship-handling simulator course on an installation capable of simulating the manoeuvring characteristics of such a ship.
- 4 The additional training and qualifications of masters and chief mates of dynamically supported and high speed craft should be in accordance with the relevant guidelines of the IMO Code of Safety for Dynamically Supported Craft and the IMO Code of Safety for High Speed Craft (HSC) Code, as appropriate.

### **Section B-V/4**

#### **Guidance regarding training of officers and ratings responsible for cargo handling on ships carrying dangerous and hazardous substances in solid form in bulk.**

- 1 Training should be divided into two parts, a general part on the principles involved and a part on the application of such principles to ship operation. All training and instruction should be given by properly qualified and suitably experienced personnel and cover at least the subjects given in paragraphs 2 to 15 hereunder.

## PRINCIPLES

### Characteristics and properties

2 The important physical characteristics and chemical properties of dangerous and hazardous substances, sufficient to give a basic understanding of the intrinsic hazards and risks involved.

### Classification of materials possessing chemical hazards

3 IMO dangerous goods classes 4-9 and materials hazardous only in bulk (MHB) and the hazards associated with each class.

### Health hazards

4 Dangers from skin contact, inhalation, ingestion and radiation.

### Conventions, regulations and recommendations

5 General familiarization with the relevant requirements of chapters II-2 and VII of the 1974 SOLAS Convention as amended.

6 General use of and familiarization with the Code of Safe Practice for Solid Bulk Cargoes (BC Code) with particular reference to:

- .1 safety of personnel including safety equipment, measuring instruments, their use and practical application and interpretation of results;
- .2 hazards from cargoes which have a tendency to shift; and
- .3 materials possessing chemical hazards.

## SHIPBOARD APPLICATION

### Class 4.1 - Flammable solids

### Class 4.2 - substances liable to spontaneous combustion

### Class 4.3 - substances which, in contact with water, emit flammable gases

7 Carriage, stowage and control of temperature to prevent decomposition and possible explosion; stowage categories; general stowage precautions, including those applicable to self-reactive and related substances; segregation requirements to prevent heating and ignition; the emission of poisonous or flammable gases and the formation of explosive mixtures.

### Class 5.1 - Oxidizing substances

8 Carriage, stowage and control of temperature to prevent decomposition and possible explosion; stowage categories; general stowage precautions and segregation requirements to ensure separation from combustible material, from acids and heat sources to prevent fire, explosion and the formation of toxic gases.

**Class 6.1 - Toxic substances**

- 9 Contamination of foodstuffs, working areas and living accommodation and ventilation.

**Class 7 - Radioactives**

- 10 Transport index; types of ores and concentrates; stowage and segregation from persons, undeveloped photographic film and plates and foodstuffs; stowage categories; general stowage requirements; special stowage requirements; segregation requirements and separation distances; segregation from other dangerous goods.

**Class 8 - Corrosives**

- 11 Dangers from wetted substances.

**Class 9 - Miscellaneous dangerous substances and articles**

- 12 Examples and associated hazards; the hazards of materials hazardous only in bulk (MHB); general and specific stowage precautions; working and transport precautions; segregation requirements.

**Safety precautions and emergency procedures**

- 13 Electrical safety in cargo spaces; precautions to be taken for entry into enclosed spaces that may contain oxygen depleted, poisonous or flammable atmospheres; the possible effects of fire in shipments of substances of each class; use of the Emergency Procedures for Ships Carrying Dangerous Goods; emergency plans and procedures to be followed in case of incidents involving dangerous and hazardous substances and the use of individual entries in the Code of Safe Practice for Solid Bulk Cargoes in this respect.

**Medical first aid**

- 14 The IMO Medical First Aid Guide for Use in Accidents Involving Dangerous Goods (MFAG) and its use and application in association with other guides and medical advice by radio.

**Section B-V/5**

**Guidance regarding training of officers and ratings responsible for cargo handling on ships carrying dangerous and hazardous substances in packaged form.**

- 1 Training should be divided into two parts, a general part on the principles involved and a part on the application of such principles to ship operation. All training and instruction should be given by properly qualified and suitably experienced personnel and cover at least the subjects given in paragraphs 2 to 19 hereunder.

## **PRINCIPLES**

### **Characteristics and properties**

2 The important physical characteristics and chemical properties of dangerous and hazardous substances, sufficient to give a basic understanding of the intrinsic hazards and risks involved.

### **Classification of dangerous and hazardous substances and materials possessing chemical hazards**

3 IMO dangerous goods classes 1-9 and the hazards associated with each class; materials hazardous only in bulk (MHB).

### **Health hazards**

4 Dangers from skin contact, inhalation, ingestion and radiation.

### **Conventions, regulations and recommendations**

5 General familiarization with the relevant requirements of chapters II-2 and VII of the 1974 SOLAS Convention and of Annex III of MARPOL73/78 including its implementation through the IMDG Code.

### **Use of and familiarization with the International Maritime Dangerous Goods (IMDG) Code**

6 General knowledge of the requirements of the IMDG Code concerning declaration, documentation, packing, labelling and placarding; freight container and vehicle packing; portable tanks, tank containers and road tank vehicles, and other transport units used for dangerous substances.

7 Knowledge of identification, marking, labelling, for stowage, securing, separation and segregation in different ship types mentioned in the IMDG Code.

8 Safety of personnel including safety equipment, measuring instruments, their use and practical application and the interpretation of results.

## **SHIPBOARD APPLICATION**

### **Class 1 - Explosives**

9 The 6 hazard divisions and 13 compatibility groups; packagings and magazines used for carriage of explosives; structural serviceability of freight containers and vehicles; stowage provisions, including specific arrangements for on-deck and under deck stowage; segregation from dangerous goods of other classes within class 1 and from non-dangerous goods; transport and stowage on passenger ships; suitability of cargo spaces; security precautions; precautions to be taken during loading and unloading.

**Class 2 - Gases (compressed, liquefied, refrigerated liquefied or gases in solution) flammable, non-compressed, non-poisonous and poisonous**

10 Types of pressure vessels and portable tanks including relief and closing devices used; stowage categories; general stowage precautions including those for flammable and poisonous gases and gases which are marine pollutants.

**Class 3 - Flammable liquids**

11 Packagings, tank containers, portable tanks and road tank vehicles; stowage categories, including the specific requirements for plastics receptacles; general stowage precautions including those for marine pollutants; segregation requirements; precautions to be taken when carrying flammable liquids at elevated temperatures.

**Class 4.1 - Flammable solids**

**Class 4.2 - substances liable to spontaneous combustion**

**Class 4.3 - substances which, in contact with water, emit flammable gases**

12 Types of packagings; carriage and stowage under controlled temperatures to prevent decomposition and possible explosion; stowage categories; general stowage precautions, including those applicable to self-reactive and related substances, desensitized explosives and marine pollutants; segregation requirements to prevent heating and ignition, the emission of poisonous or flammable gases and the formation of explosive mixtures.

**Class 5.1 - Oxidizing substances**

**Class 5.2 - Organic peroxides**

13 Types of packagings; carriage and stowage under controlled temperatures to prevent decomposition and possible explosion; stowage categories; general stowage precautions, including those applicable to marine pollutants; segregation requirements to ensure separation from combustible material, from acids and heat sources to prevent fire, explosion and the formation of toxic gases; precautions to minimize friction and impact which can initiate decomposition.

**Class 6.1 - Toxic substances**

**Class 6.2 - Infectious substances**

14 Types of packagings; stowage categories; general stowage precautions including those applicable to toxic, flammable liquids and marine pollutants; segregation requirements, especially considering that the characteristic common to these substances is their ability to cause death or serious injury to human health; decontamination measures in the event of spillage.

**Class 7 - Radioactives**

15 Types of packagings; transport index in relation to stowage and segregation; stowage and segregation from persons, undeveloped photographic film and plates and foodstuffs; stowage categories; general stowage requirements; segregation requirements and separation distances; segregation from other dangerous goods.



#### **Class 8 - Corrosives**

16 Types of packagings; stowage categories; general stowage precautions, including those applicable to corrosive, flammable liquids and marine pollutants; segregation requirements, especially considering that the characteristic common to these substances is their ability to cause severe damage to living tissue.

#### **Class 9 - Miscellaneous dangerous substances and articles**

17 Examples of hazards including marine pollution.

#### **Safety precautions and emergency procedures**

18 Electrical safety in cargo spaces; precautions to be taken for entry into enclosed spaces that may contain oxygen depleted, poisonous or flammable atmospheres; the possible effects of spillage or fire in shipments of substances of each class; consideration of events on deck or below deck; use of the IMO Emergency Procedures for Ships Carrying Dangerous Goods; emergency plans and procedures to be followed in case of incidents involving dangerous substances.

#### **Medical first aid**

19 The IMO Medical First Aid Guide for Use in Accidents Involving Dangerous Goods (MFAG) and its use and application in association with other guides and medical advice by radio.

### **CHAPTER VI**

#### **GUIDANCE REGARDING EMERGENCY, OCCUPATIONAL SAFETY, MEDICAL CARE AND SURVIVAL FUNCTIONS**

##### **Section B-VI/1**

##### **Guidance regarding familiarization and basic safety training and instruction for all seafarers**

##### **Fire prevention and fire-fighting**

1 The basic training in fire prevention and fire-fighting required by section A-VI/1 should include at least the *theoretical and practical elements itemized in paragraphs 2 to 4 hereunder.*

##### **Theoretical training**

2 The theoretical training should cover:

- .1 the three elements of fire and explosion (the fire triangle), fuel; source of ignition; oxygen;
- .2 ignition sources: chemical; biological; physical;

- .3 flammable materials: flammability; ignition point; burning temperature; burning speed; thermal value; lower flammable limit (LFL); upper flammable limit (UFL); flammable range; inerting; static electricity; flashpoint; auto-ignition;
- .4 fire hazard and spread of fire by radiation, convection, and conduction;
- .5 reactivity;
- .6 classification of fires and applicable extinguishing agents;
- .7 main causes of fire on board ships: oil leakage in engine-room; cigarettes; overheating (bearings); galley appliances (stoves, flues, fryers, hotplates, etc.); spontaneous ignition (cargo, wastes, etc.); hot work (welding, cutting, etc.); electrical apparatus (short circuit, non-professional repairs); reaction, self-heating and auto-ignition; arson; static electricity;
- .8 fire prevention;
- .9 fire and smoke detection systems; automatic fire alarms;
- .10 fire-fighting equipment including:
  - .10.1 fixed installations on board and their locations; fire mains, hydrants; international shore connection; smothering installations, carbon dioxide (CO<sub>2</sub>), foam; halogenated hydrocarbons; pressure water spray system in special category spaces, etc.; automatic sprinkler system; emergency fire pump; emergency generator; chemical powder applicants; general outline of required and available mobile apparatus; high pressure fog system; high expansion foam; new developments and equipment;
  - .10.2 firefighter's outfit, personal equipment; breathing apparatus; resuscitation apparatus; smoke helmet or mask; fireproof life-line and harness; and their location on board; and
  - .10.3 general equipment including fire hoses, nozzles, connections, fire axes; portable fire extinguishers; fire blankets;
- .11 construction and arrangements including escape routes; means for gas freeing tanks; Class A, B and C divisions; inert gas systems;
- .12 ship fire-fighting organization, including general alarm; fire control plans, muster stations and duties of individuals; communications, including ship-shore when in port; personnel safety procedures; periodic shipboard drills; patrol systems.
- .13 practical knowledge of resuscitation methods;

- .14 fire-fighting methods including sounding the alarm; locating and isolating; jettisoning; inhibiting; cooling; smothering; extinguishing; reflash watch; smoke extraction; and
- .15 fire-fighting agents including water, solid jet, spray, fog, flooding; foam, high, medium and low expansion; carbon dioxide (CO<sub>2</sub>); halon; aqueous film forming foam (AFFF); dry chemical powder; new developments and equipment.

### **Practical training**

3 The practical training given below should take place in spaces which provide truly realistic training conditions, (e.g. simulated shipboard conditions), and whenever possible and practical should also be carried out in darkness as well as by daylight and should allow the trainees to acquire the ability to:

- .1 use various types of portable fire extinguishers;
- .2 use self-contained breathing apparatus;
- .3 extinguish smaller fires, e.g. electrical fires, oil fires and propane fires;
- .4 extinguish extensive fires with water (jet and spray nozzles);
- .5 extinguish fires with either foam, powder or any other suitable chemical agent;
- .6 enter and pass through, with life-line but without breathing apparatus, a compartment into which high expansion foam has been injected;
- .7 fight fire in smoke-filled enclosed spaces wearing self-contained breathing apparatus;
- .8 extinguish fire with water fog, or any other suitable fire-fighting agent in an accommodation room or simulated engine-room with fire and heavy smoke;
- .9 extinguish an oil fire with fog applicator and spray nozzles; dry chemical powder or foam applicators;
- .10 effect a rescue in a smoke-filled space wearing breathing apparatus.

### **General**

4 Trainees should also be made aware of the necessity of maintaining a state of readiness on board.

### **Elementary first aid**

5 The training in elementary first aid required by regulation VI/1 as part of the basic training should be given at an early stage in vocational training, preferably during pre-sea training, to enable seafarers to take immediate action upon encountering an accident or other medical emergency until the arrival of a person with first aid skills or the person in charge of medical care on board.

#### **Personal safety and social responsibilities**

6 Administrations should bear in mind the significance of communication and language skills in maintaining safety of life and property at sea and in preventing marine pollution. Given the international character of the maritime industry, the reliance on voice communications from ship-to-ship and ship-to-shore, the increasing use of multi-national crews, and the concern that crew members should be able to communicate with passengers in an emergency, adoption of a common language for maritime communications would promote safe practice by reducing the risk of human error in communicating essential information.

7 Although not universal, by common practice English is rapidly becoming the standard language of communication for maritime safety purposes, partly as a result of the use of the Standard Marine Navigational Vocabulary, as replaced by the IMO Standard Marine Communication Phrases.

8 Administrations should consider the benefits of ensuring that seafarers have an ability to use at least an elementary English vocabulary, with an emphasis on nautical terms and situations.

#### **Section B-VI/2**

##### **Guidance regarding certification for proficiency in survival craft, rescue boats and fast rescue boats**

1 Before training is commenced the requirement of medical fitness, particularly regarding eyesight and hearing, should be met by the candidate.

2 The training should be relevant to the provisions of the International Convention for the Safety of Life at Sea (SOLAS), as amended.

#### **Section B-VI/3**

##### **Guidance regarding training in advanced fire-fighting**

(No provisions)

#### **Section B-VI/4**

##### **Guidance regarding requirements in medical first aid and medical care**

(No provisions)

## CHAPTER VII

### GUIDANCE REGARDING ALTERNATIVE CERTIFICATION

#### Section B-VII/1

Guidance regarding the issue of alternative certificates

(No provisions)

#### Section B-VII/2

Guidance regarding certification of seafarers

( No provisions)

#### Section B-VII/3

Guidance regarding principles governing the issue of alternative certificates

(No provisions)

## CHAPTER VIII

### GUIDANCE REGARDING WATCHKEEPING

#### Section B-VIII/1

Guidance regarding fitness for duty

#### Prevention of fatigue

1 In observing the rest period requirements, "overriding operational conditions" should be construed to mean only essential shipboard work which cannot be delayed for safety or environmental reasons or which could not reasonably have been anticipated at the commencement of the voyage.

2 Although there is no universally accepted technical definition of fatigue, everyone involved in ship operations should be alert to the factors which can contribute to fatigue, including, but not limited to those identified by the Organization, and take them into account when making decisions on ship operations.

3 In applying regulation VIII/1, the following should be taken into account:

- .1 provisions made to prevent fatigue should ensure that excessive or unreasonable overall working hours are not undertaken. In particular, the minimum rest periods specified in Section A-VIII/1 should not be interpreted as implying that all other hours may be devoted to watchkeeping or other duties;
- .2 that the frequency and length of leave periods, and the granting of compensatory leave, are material factors in preventing fatigue from building up over a period of time;

- 3 the provisions may be varied for ships on short-sea voyages, provided special safety arrangements are put in place; and
- 4 Administrations should consider the introduction of a requirement that records of hours of work or rest of seafarers should be maintained and that such records are inspected by the Administration at appropriate intervals to ensure compliance with regulations concerning working hours or rest periods.
- 5 Based on information received as a result of investigating maritime casualties, Administrations should keep their provisions on prevention of fatigue under review.

#### **Section B-VIII/2**

#### **Guidance regarding watchkeeping arrangements and principles to be observed**

- 1 The following operational guidance should be taken into account by companies, masters and watchkeeping officers.

#### **PART 1 - GUIDANCE ON CERTIFICATION**

(No provisions)

#### **PART 2 - GUIDANCE ON VOYAGE PLANNING**

(No provisions)

#### **PART 3 - GUIDANCE ON WATCHKEEPING AT SEA**

(No provisions)

#### **PART 3-1 - GUIDANCE ON KEEPING A NAVIGATIONAL WATCH**

##### **Introduction**

- 2 Particular guidance may be necessary for special types of ships as well as for ships carrying hazardous, dangerous, toxic or highly flammable cargoes. The master should provide this operational guidance as appropriate.

- 3 It is essential that officers in charge of the navigational watch appreciate that the efficient performance of their duties is necessary in the interests of the safety of life and property at sea and of preventing pollution of the marine environment.

##### **Bridge resource management**

- 4 Companies should issue guidance on proper bridge procedures, and promote the use of checklists appropriate to each ship taking into account national and international guidance.

5 Companies should also issue guidance to masters and officers in charge of the navigational watch on each ship concerning the need for continuously reassessing how bridge-watch resources are being allocated and used, based on bridge resource management principles such as the following:

- .1 a sufficient number of qualified individuals should be on watch to ensure all duties can be performed effectively;
- .2 all members of the navigational watch should be appropriately qualified and fit to perform their duties efficiently and effectively or the officer in charge of the navigational watch should take into account any limitation in qualifications or fitness of the individuals available when making navigational and operational decisions;
- .3 duties should be clearly and unambiguously assigned to specific individuals, who should confirm that they understand their responsibilities;
- .4 tasks should be performed according to a clear order of priority;
- .5 no member of the navigational watch should be assigned more duties or more difficult tasks than can be performed effectively;
- .6 individuals should be assigned at all times to locations at which they can most efficiently and effectively perform their duties, and individuals should be reassigned to other locations as circumstances may require;
- .7 members of the navigational watch should not be assigned to different duties, tasks or locations until the officer in charge of the navigational watch is certain that the adjustment can be accomplished efficiently and effectively;
- .8 instruments and equipment considered necessary for effective performance of duties should be readily available to appropriate members of the navigational watch;
- .9 communications among members of the navigational watch should be clear, immediate, reliable, and relevant to the business at hand;
- .10 non-essential activity and distractions should be avoided, suppressed or removed;
- .11 all bridge equipment should be operating properly and if not, the officer in charge of the navigational watch should take into account any malfunction which may exist in making operational decisions;
- .12 all essential information should be collected, processed and interpreted, and made conveniently available to those who require it for the performance of their duties;
- .13 non-essential materials should not be placed on the bridge or any work surface; and
- .14 members of the navigational watch should at all times be prepared to respond efficiently and effectively to changes in circumstances.